

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002803**Date Inspected:** 24-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Hu Wei Qing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Roscoe Dixon was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG) and Tower.

Bay 7:

The QA Inspector observed ZPMC qualified Welders Zhang Han Feng ID 058102 utilizing the Shielded Metal Arc Welding (SMAW) Process with Weld Procedure Specifications (WPS)-B-P-2112 to tack weld stiffeners on floor beams FB003-027.

The QA Inspector observed that during the shift ZPMC CWI, Wu Ming Kai and various ZPMC CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures at several welding stations in this bay.

The electrode filler metal being used by Mr. Feng during the welding was verified as TL-508 with a diameter of 4.0. During the welding the QA Inspector verified the welding machine amperes utilizing a Fluke meter which registered 167 amperes.

The work being performed was in progress generally appeared to comply with the above listed WPS's and conform to contract specifications.

The QA Inspector observed ZPMC qualified welders Mr. Hong Shuili ID044815 utilizing Flux Cored Arc Welding (FCAW) process with ZPMC Weld Procedure Specification (WPS) WPS-B-7-2231-F1 to weld the root

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pass for the complete joint penetration CJP) weld joint of floor beam web plate FB019-001-080.

During the welding of floor beam the QA Inspector verified the weld parameters utilizing a Fluke Meter, Mr. Hong Shuili's welding machine amperes registered at 252 with 29.3 volts.

The QA Inspector visually verified the filler metal being used for the FCAW process welding as Supercored 71H with a diameter of 1.4 millimeters mm. The QA Inspector observed that during the shift ZPMC CWI, Hu Wei Pang and various CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures in Bay #7 during the shift. For more detail see photographs shown below:



### Summary of Conversations:

As noted within the report shown above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Dixon,Roscoe

Quality Assurance Inspector

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**Reviewed By:** Hager,Craig

QA Reviewer